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Tuna Newsletter

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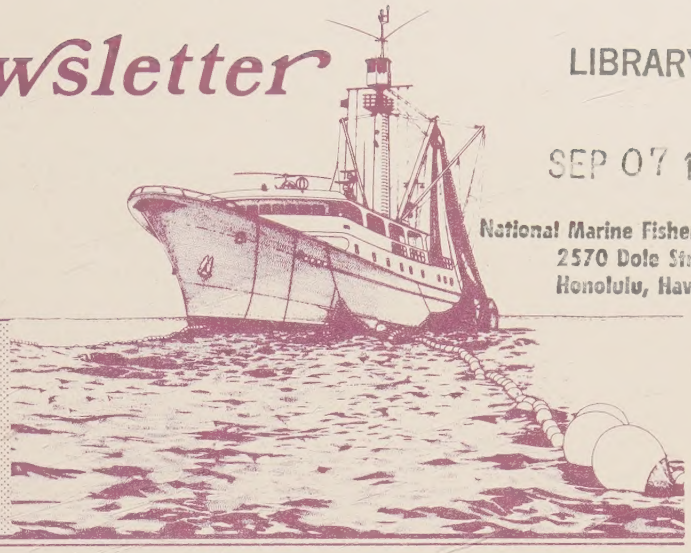

National Marine Fisheries Service
- Southwest Region
- Southwest Fisheries Science Center

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U.S. TUNA STATISTICS

Editor's note: The following articles were prepared by NMFS personnel from data and information gathered from sources in the U.S. tuna industry and government.

U.S. CANNED TUNA INDUSTRY HIGHLIGHTS, FIRST QUARTER 1993

Total receipts of tuna by U.S. canners during the first quarter of 1993 (January-March) decreased by 15% to the equivalent of 94,300 short tons (st) of whole fish (round weight), compared to the first quarter of 1992 (Table 1). The principal species received was skipjack tuna with 60% of the total, followed by yellowfin and albacore, each with approximately 20% of the total. Skipjack, albacore and yellowfin receipts were down 18%, 11% and 9%, respectively, for the quarter. Although the vast majority of tuna received by U.S. canners is whole fish, some quantity of tuna is received as loins or gilled-and-gutted. The ratio of tuna loins to total receipts for the first quarter of 1993 was 4%, compared to 10% for the first quarter of 1992. (The round weight totals used above were approximated by converting weights of loins and gilled-and-gutted receipts by factors of 2.25 and 1.11, respectively. For the remainder of this article, unconverted receipts are used unless otherwise stated.)

Receipts of tuna in American Samoa and California for the first quarter of 1993 were down 18%, compared to the first quarter of 1992, reflecting substantial decreases in albacore and yellowfin receipts (Table 2). Receipts in Puerto Rico were up by 3%, with increases in albacore and yellowfin receipts more than offsetting a considerable decrease in skipjack receipts. Domestic deliveries to canneries were down 11% in

Table 1. Total U.S. cannery receipts (st) by species for the first quarters of 1992 and 1993. Totals may not add due to rounding.

Jan-Mar	Type	Albacore	Skipjack	Yellowfin[1]	TOTAL
1992	ROUND	21,200	49,500	17,400	88,100
	GILLED & GUTTED	0	0	600	600
	LOIN	0	8,400	1,400	9,700
	TOTAL (as received)	21,200	57,900	19,300	98,300
	TOTAL (estimated round wt)[2]	21,200	68,300	21,100	110,500
1993	ROUND	18,800	49,900	16,800	85,500
	GILLED & GUTTED	*	*	300	300
	LOIN	0	2,800	1,000	3,800
	TOTAL (as received)	18,800	52,700	18,100	89,600
	TOTAL (estimated round wt)[2]	18,800	56,200	19,300	94,300

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

Table 2. U.S. cannery receipts (st) of domestic and imported tuna by species for the first quarters of 1992, 1993 and the recent (1988-92) first quarter averages. Totals may not add due to rounding.

Jan-Mar	Source	Albacore	Skipjack	Yellowfin[1]	TOTAL
AMERICAN SAMOA & CALIFORNIA					
1992	DOMESTIC	2,300	26,000	11,000	39,300
	IMPORTED	9,000	5,700	1,500	16,200
	TOTAL	11,300	31,700	12,600	55,500
1993	DOMESTIC	800	29,000	5,200	35,000
	IMPORTED	5,400	3,700	1,400	10,500
	TOTAL	6,100	32,800	6,600	45,500
1988-92 Average	DOMESTIC	2,300	22,000	9,200	33,500
	IMPORTED	7,100	8,400	3,000	18,500
	TOTAL	9,400	30,500	12,200	52,000
PUERTO RICO					
1992	DOMESTIC	0	6,500	1,100	7,600
	IMPORTED	9,900	19,700	5,600	35,200
	TOTAL	9,900	26,200	6,800	42,800
1993	DOMESTIC	500	12,400	3,500	16,400
	IMPORTED	12,100	7,500	8,000	27,700
	TOTAL	12,700	19,900	11,500	44,100
1988-92 Average	DOMESTIC	*	3,300	9,200	12,400
	IMPORTED	14,000	17,000	11,100	42,200
	TOTAL	14,000	20,300	20,300	54,600
TOTAL					
1992	DOMESTIC	2,300	32,500	12,100	46,900
	IMPORTED	18,800	25,400	7,200	51,400
	TOTAL	21,200	57,900	19,300	98,300
1993	DOMESTIC	1,300	41,400	8,700	51,400
	IMPORTED	17,500	11,300	9,400	38,200
	TOTAL	18,800	52,700	18,100	89,600
1988-92 Average	DOMESTIC	2,300	25,300	18,400	46,000
	IMPORTED	21,100	25,400	14,100	60,600
	TOTAL	23,400	50,700	32,500	106,600

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

American Samoa and California, and up 116% in Puerto Rico. Skipjack was easily the largest component of all domestic deliveries at 41,400 st, followed by yellowfin, 8,700 st, and albacore, 1,300 st. Domestic deliveries accounted for 57% of the tuna delivered to U.S. canners during the first quarter of the year.

Albacore was the leading import for the first quarter of 1993 at 17,500 st, followed by skipjack and yellowfin at 11,300 st and 9,400 st, respectively (Table 3). The leading supplier was Taiwan, with 28% of the import market, followed by France and Japan, with 22% and 15% of the market, respectively. The western Pacific Ocean was the main source of all three important tuna species (Table 4): skipjack (41,500 st), albacore (10,900 st) and yellowfin (8,400 st).

Contract prices for domestically caught tuna delivered to U.S. canners in the first quarter of 1993 were lower than 1992 prices for all categories of fish except large yellowfin, which ended the quarter at $902 per st (Table 5). U.S. imports of canned tuna packed in water totaled 39,000 st for the first quarter of 1993, down 27% from 1992. The decline in canned tuna imports is partially due to soft U.S. retail sales and a Food and Drug Administration detention of some shipments from Southeast Asia suspected to be of unfit quality. As of June 20, 1993, imports of canned tuna stood at 51,700 st, down 47% from the previous year.

U.S. TUNA FISHERIES UPDATE

EASTERN PACIFIC PURSE SEINE FISHERY

During the period January through June 1993, 10 U.S. purse seiners caught an estimated 7,000 metric tons (mt) of yellowfin tuna and 9,400 mt of skipjack tuna in the eastern tropical Pacific (Figure 1). The yellowfin catch was down 26% from the 1992 catch (9,500 mt), while the skipjack catch was up 32% from the 1992 catch (7,100 mt). The fleet continues to be effected by "dolphin safe" policies and is concentrating its effort on skipjack and yellowfin not associated with dolphins. However, based on fishing trips completed between October 1, 1992, and June 27, 1993, three U.S. vessels did make a total of 227 sets on tuna associated with dolphins resulting in an incidental mortality of 105 animals.

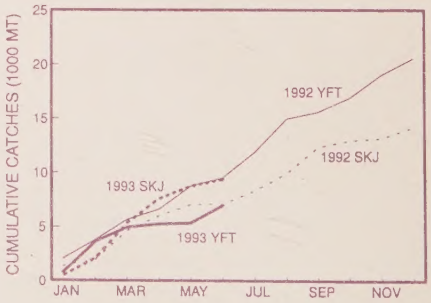


Figure 1. Cumulative tuna catches, by month, for the U.S. eastern Pacific purse seine fishery, 1992 and 1993.

At the annual meeting of the Inter-American Tropical Tuna Commission (IATTC) held June 7-10, 1993, in Port Villa, Vanuatu, the

Table 3. U.S. cannery imports (st) of tuna by species[1] and source (flag of catcher vessel) for the first quarter of 1993. Totals for the first quarter of 1992 are given for comparison. Note that the flag of the catcher vessel does not necessarily reflect the country of export or point of shipment. Totals may not add due to rounding.

COUNTRY	1993				1992
	ALB	SKJ	YFT[2]	TOTAL	TOTAL
ECUADOR	0	400	200	600	1,400
F.S. MICRONESIA	0	2,900	800	3,800	300
FRANCE	300	2,800	5,300	8,300	5,100
GHANA	0	700	500	1,200	4,600
JAPAN	5,600	100	0	5,600	5,600
NEW ZEALAND	700	0	0	700	1,200
PANAMA	0	700	700	1,300	2,500
ST. VINCENT	0	300	200	500	200
SIERRA LEONE	0	200	200	500	0
SOUTH AFRICA	1,600	0	0	1,600	0
SOUTH KOREA	300	300	300	1,000	1,700
SPAIN	300	300	0	600	6,700
TAIWAN	8,600	1,700	500	10,700	13,500
VANUATU	0	900	600	1,500	2,800
OTHER	200	*	100	300	5,800
TOTAL (as received)	17,500	11,300	9,400	38,200	51,400
TOTAL (estimated rnd wt)[3]	17,500	14,800	10,600	42,900	63,600

*Less than 100 st reported for this category.

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]May include a small amount of bigeye tuna.

[3]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 4. Receipts (st) of tuna by U.S. canneries by species[1] and area of capture for the first quarters of 1992 and 1993. Totals may not add due to rounding.

SOURCE	1992			1993		
	ALB	SKJ	YFT[2]	ALB	SKJ	YFT[2]
E. ATLANTIC OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	2,100	15,700	4,800	2,800	2,900	3,900
TOTAL	2,100	15,700	4,800	2,800	2,900	3,900
W. ATLANTIC OCEAN						
DOMESTIC	0	0	0	*	0	0
IMPORTED	2,600	0	*	3,000	*	100
TOTAL	2,600	0	*	3,100	*	100
E. PACIFIC OCEAN						
DOMESTIC	*	2,700	800	600	4,700	2,000
IMPORTED	0	2,300	300	200	1,200	700
TOTAL	*	5,000	1,100	800	5,900	2,600
W. PACIFIC OCEAN						
DOMESTIC	2,300	29,800	11,300	700	36,700	6,700
IMPORTED	10,900	4,700	1,000	10,200	4,800	1,700
TOTAL	13,200	34,400	12,300	10,900	41,500	8,400
INDIAN OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	3,200	2,700	1,100	1,300	2,300	3,000
TOTAL	3,200	2,700	1,100	1,300	2,300	3,000

*Less than 100 st reported for this category.

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]May include a small amount of bigeye tuna.

IATTC reported that the tuna stocks in the eastern tropical Pacific Ocean were in a healthy condition and in no danger of over-exploitation. This fishery is predicted to end the year with about the same level of catches as in 1992, i.e., approximately 237,000 mt of yellowfin tuna and 85,000 mt of skipjack tuna.

WESTERN PACIFIC PURSE SEINE FISHERY

According to reports received by the SWFSC, 29 U.S. purse seiners, fishing in the western tropical Pacific under the South Pacific Tuna Treaty, landed an estimated 34,600 mt of skipjack tuna and 8,400 mt of yellowfin and bigeye tuna during the period January through April 1993 (Figure 2). The skipjack landings were down 17% from the 1992 landings for the same period (41,700 mt) and the yellowfin/bigeye landings were down 64% (from 23,500). The 1993 totals are preliminary and may understate the actual landings due to delays in recording transshipped catches.

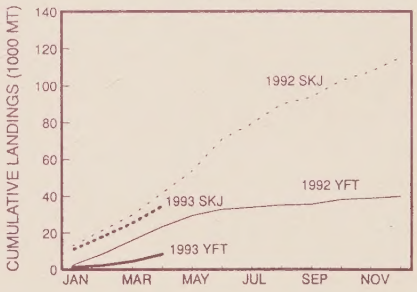


Figure 2. Cumulative tuna landings, by month, for the U.S. western Pacific purse seine fishery, 1992 and 1993.

NORTHERN PACIFIC ALBACORE FISHERY

The 1993 U.S. troll season for albacore in the north Pacific began in early June with vessels departing from the Hawaiian Islands. Albacore were caught in large numbers (up to 500 fish per day) during mid-June near the international date line,

Table 5. Contract price ranges (U.S. $ per st) for skipjack and yellowfin tuna for delivery to U.S. canneries in American Samoa and Puerto Rico by U.S. vessels arriving from trips in the first quarters 1992 and 1993.

SIZE CLASS (lbs	SKIPJACK		YELLOWFIN	
	1992	1993	1992	1993
<3	250-340	190-327	250-340	190-327
3 to 4	450-540	390-527	450-540	390-527
4 to 7.5	645-735	585-722	645-735	585-722
7.5 to 20	710-795	635-772	720-795	645-782
>20	---	---	810-860	765-902

north of Midway Island. Catches slowed by month's end and averaged 50 to 100 fish per day by mid-July as the fleet moved eastward. Boats started leaving West Coast ports in early July only to find slow fishing up to 1,200 miles off Oregon and Washington. Fish sizes reported thus far are large, averaging 16 to 20 pounds. *(Data provided by David B. Holts, Southwest Fisheries Science Center, La Jolla, CA)*

ATLANTIC BLUEFIN TUNA FISHERY

As of July 9, the total U.S. commercial landing of Atlantic bluefin tuna for 1993 stood at 80 mt, down 45% from the commercial landing (145 mt) for the same period of 1992, largely due to reduced quotas. The incidental longline category south of 36°N latitude was closed to fishing on May 4 on the determination that the annual quota of 54 mt had been reached.

HAWAII TUNA FISHERY

Preliminary data show that in 1992 commercial landings of tuna in Hawaii totaled 4,300 mt with an ex-vessel value of $23.1 million (Figures 3 and 4). The 1992 landings were down 9% in weight and 4% in value from the 1991 totals (4,700 mt and $24.1 million). Bigeye was the most important component of the 1992 landings at 1,800 mt valued at $13.6 million, followed by yellowfin (1,200 mt and $5.7 million) and skipjack (900 mt and $2.6 million). The longline segment (the principal gear employed) of the 1992 commercial pelagics fleet stood at 123 vessels, a slight increase from the 115 longliners active in 1991. *(Data provided by Samuel Pooley, NMFS Southwest Fisheries Science Center, Honolulu, HI)*

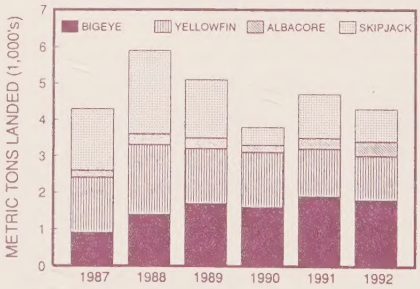


Figure 3. Commercial tuna landings in Hawaii, by species, 1987 to 1992.

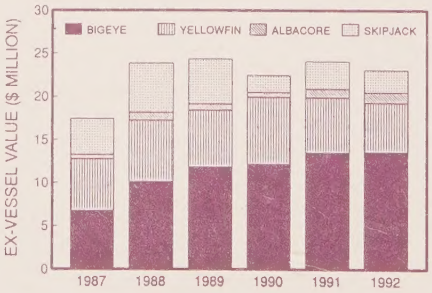


Figure 4. Ex-vessel value of tuna landings in Hawaii, by species, 1987 to 1992.

REPORTS

Editor's note: Original reports are published as a service to subscribers and may not represent the views of the NMFS. Readers should contact the authors of reports for details, if needed.

STRIPED MARLIN MOVEMENTS IN HAWAII

David B. Holts, La Jolla Laboratory, Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, P.O. Box 271, La Jolla, CA 92038

Striped marlin (*Tetrapturus audax*) are widely distributed in the Pacific and Indian Oceans. Like other large pelagic predators, they make extensive movements throughout their range. They are not, however, considered as highly migratory as bluefin tuna (*Thunnus thynnus*) or albacore (*Thunnus alalunga*) which undertake rapid and regular transoceanic migrations.

Recently Dr. Rich Brill (NMFS, Honolulu) and associates completed a study of striped marlin movements off the west coast of Hawaii. They measured horizontal and vertical movements of striped marlin while simultaneously gathering data on oceanic currents and water temperature. The movements of striped marlin were monitored using ultrasonic depth sensitive transmitters, oceanic current patterns with an acoustic Doppler current profiler and depth-temperature profiles with an expendable bathythermograph system.

Previous studies using ultrasonic telemetry to determine billfish activities reported rates of movement which were actually speed over ground rather than true swimming speed. Without data on ocean currents, no conclusions could be drawn as to the effects of currents on horizontal displacements. The study by Brill et al. provides the first

description of pelagic fish movement with simultaneously gathered data on the speed and direction of ocean currents.

The study showed that the horizontal displacements of striped marlin off the western coast of Hawaii were in relatively straight lines or slowly curving arcs. Data from the Doppler current profiles clearly indicated that at least some fraction of the overall horizontal displacement of striped marlin was influenced by oceanic currents with strong influence in some cases. It is possible that other large migrating fish such as the tunas may also take advantage of existing oceanic currents.

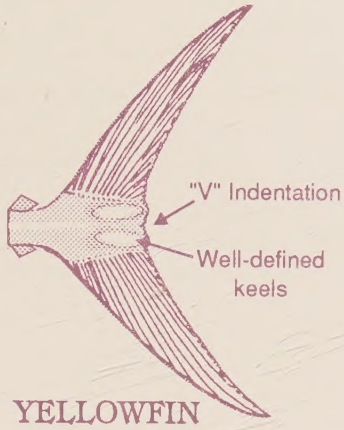
Depth preferences of the striped marlin in this study were similar, but not identical, to those tracked off California in a study by Holts. In both studies, the fish spent a significant amount of time in the upper 10 m and over 85% of their time in the mixed layer, above the thermocline. The thermocline depth off Hawaii was about 90 m while in California it averaged 20 m.

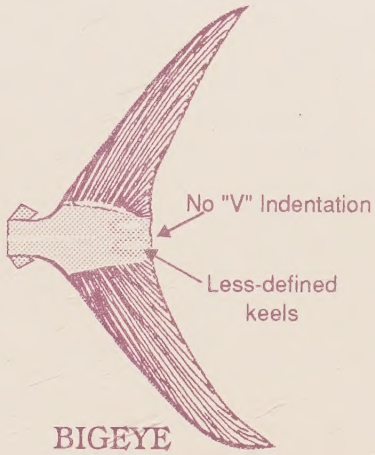
The maximum depth for striped marlin appeared to be limited by water temperatures 8°C colder than the mixed layer, rather than by an absolute lower temperature.

YELLOWFIN OR BIGEYE? A METHOD FOR FISH SAMPLERS

Gordon Yamasaki, Southwest Region, National Marine Fisheries Service, NOAA, P.O. Box 4150, Pago Pago, American Samoa 96799

Yellowfin or bigeye? This question often arises when taking length frequency samples from purse seiners unloading at the canneries in Pago Pago, American Samoa. In our port sampling program we have been utilizing a distinguishing physical characteristic not reported in most of the current literature.





Identifying fish during unloading at canneries is not the same as identifying fresh samples landed on the vessel. Small and large skipjack, yellowfin and bigeye tuna are often frozen and mixed together in fish wells, especially when fish landed were caught in sets made on logs and other floating debris. Many of the characteristics that distinguish yellowfin from bigeye are also not readily apparent in smaller fish. Coloration and distinguishing marks are often washed out; fish are often bent, smashed or broken in the well and during unloading operations; the pectoral fins are of about the same length in juveniles of both species; and vessel personnel and cannery officials discourage cutting the fish open to remove livers and to look at the air bladder.

A quick and easy method to differentiate these two species is to take a good look at the tail of the fish in question. The trailing edge of the caudal fin on a yellowfin will always have a v-shaped indentation in the center of the tail while the trailing edge of a bigeye will have little or no v-shaped indentation. The two pairs of keels at the base of the caudal fin are also well developed on yellowfin while flat and much less developed on bigeye. These characteristics are present on both large and small specimens and may be used for determining species when only the tails are visible in the unloading scows at the cannery.

The accompanying illustration shows examples of the differences described above in yellowfin and bigeye characteristics.

An abstract from a recently published paper written by a SWFSC scientist is also presented in this space to announce its availability and to report results of tuna research conducted by Center staff.

RECENT SWFSC PUBLICATION: "DEPTH, CAPTURE TIME, AND HOOKED LONGEVITY OF LONGLINE-CAUGHT PELAGIC FISH: TIMING BITES OF FISH WITH CHIPS"

Christopher H. Boggs, Honolulu Laboratory, Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, 2570 Dole Street, Honolulu, Hawaii, 96822. *Published in Fishery Bulletin, U.S. 90(4):678-690*

To resolve the uncertainty in estimating capture depths of fish on pelagic longline gear, electronic microchip hook timers were attached to branch lines to record when bites occurred, and time-depth recorders (TDRs) were attached to longline

gear, off Hawaii in January 1989 and January-February 1990. Hook timers indicated that 32 percent of the striped marlin, *Tetrapturus audax*; 21 percent of the spearfish, *T. angustirostris*; and 12 percent of the bigeye tuna, *Thunnus obesus*, were caught on sinking or rising hooks, demonstrating that capture time data are needed to correctly estimate capture depth. Recorded and predicted longline depths differed greatly, indicating that TDRs are essential for describing depth distributions of fish from longline catches. Most (>60 percent) of the spearfish and striped marlin were caught on settled hooks (not sinking or rising) at depths of <120 m, whereas most bigeye tuna were caught at depths of >200 m. This suggests that eliminating shallow hooks could substantially reduce the bycatch of spearfish, striped marlin, and other recreationally important billfish without reducing fishing efficiency for bigeye tuna. Bigeye tuna and striped marlin survived up to 6-9 hours after capture, and over 50 percent of 12 frequently caught taxa were alive when retrieved, suggesting that the release of live fish can be an effective management option.

RECENT DEVELOPMENTS IN TUNA FISHERIES

Editor's note: The following news items, compiled from fishery trade and industry journals, newspapers and NMFS reports, are provided only as a service to our readers. The NMFS does not guarantee their accuracy.

UNITED STATES

Canned Tuna Ambitions–Unicord of Thailand has revealed plans to list its U.S. subsidiary, Bumble Bee Seafoods Inc., on the New York Stock Exchange by 1995. At present Bumble Bee has a 25.7% share of the $2 billion canned tuna market in the U.S. With one of the largest distribution networks in the U.S., Bumble Bee is also a market leader for high-grade white meat tuna. Total sales reached $419 million in 1991 and are expected to be the same in 1992. (INFOFISH *International*, January-February 1993)

Tuna Canned in Canola Oil– Van Camp Seafood, one of the U.S.'s leading brands, is to switch its production of oil pack tuna from soybean to canola oil. Canola is said to be cholesterol-free and very low in saturated fats, giving the packs a strong selling point. (GLOBEFISH *Highlights*, March 15, 1993)

WESTERN PACIFIC

ASEAN Dolphins Not in Danger– At a recent meeting of the Association of Southeast Asian Nations' Fisheries Federation in Singapore, a resolution was passed stating that tuna fishing in ASEAN waters does not endanger dolphins. According to the Federation, the tuna fishery of the ASEAN region does not involve yellowfin which associate with dolphins, and ASEAN fishermen do not use drift nets. The Federation has also appealed to the European Community and North America to reduce the import tax imposed on ASEAN canned tuna. (INFOFISH *International*, January-February 1993)

Japan-Kiribati Tuna Negotiations– Recent negotiations in Tokyo concerning extension of the private agreement between the Japanese tuna industry and the Pacific island nation of Kiribati ended with Kiribati declaring the agreement to be null and void as of August 3, 1993. The primary stumbling blocks were Kiribati demands for higher access fees and joint ventures with the Kiribati state-owned fishing company. A total of 40 Japanese tuna longliners and skipjack pole-and-line vessels caught 3,000 mt in Kiribati waters during 1991. (NMFS *Weekly Highlights*, April 19-23, 1993)

Southern Bluefin Tuna Agreement-- Japan, Australia and New Zealand signed the Convention for the Conservation of Southern Bluefin Tuna on May 10, 1993, after five years of negotiations. The Convention is designed to conserve southern bluefin tuna stocks that have been severely depleted after many years of overfishing. The tripartite agreement established a commission which will meet annually to determine management measures for the fishery. Other countries with an interest in the fishery (e.g., the Republic of Korea, Taiwan, Russia, South Africa and Indonesia) will be encouraged to join. The Convention replaces the former voluntary arrangement which set total allowable catches for the three signatory countries. In 1993 the three countries set a total catch quota of 11,750 mt and allocated 6,065 mt to Japan, 5,265 mt to Australia and 420 mt to New Zealand. The 1994 allocation will be determined during negotiations scheduled for September 1993. (NMFS *Weekly Highlights*, May 24-28, 1993)

Penang Port Increasingly Used by Foreign Tuna Vessels--The use of the port of Penang, Malaysia, by foreign tuna vessels fishing in the Indian Ocean is reported to be increasing yearly. In 1990 about 460 tuna vessels called at the port for landing; the number increased to 817 in 1991 while in 1992 a total of 1,110 vessels were reported to have landed their catch there. Tuna landings increased from 4,584 mt in 1990 to 11,569 mt in 1992 while the value was up from $3.1 million to $15.2 million over the respective years. The foreign vessels are reported to prefer using the Penang port due to good facilities and proximity to catching areas. The spin-off from the tuna business is worth millions of dollars as vessels purchase fuel, baitfish and other essentials while exporters paid the landing charges and air freight costs. (INFOFISH *Trade News*, May 3, 1993)

Islands Seeking More From Fleet Licensing-- Papua New Guinea and the United States undertook a review of fisheries agreements in February which the PNG government said could be costing it hundreds of millions of dollars in lost business. Fisheries and Marine Resources Secretary Joe Gabut said that PNG had expected the U.S. to establish onshore facilities for transhipment, refueling, freezing and canning in exchange for the right of U.S. vessels to fish PNG waters. Gabut said PNG's tuna industry had the potential to earn up to $250 million a year, but was currently making only $15 million from license fees under the multilateral accord. In 1990 PNG conducted a survey of foreign fishing companies operating in its waters to determine where they sourced supplies of fuel, food, equipment and crew. The survey also attempted to establish what could be done to capture a greater share of the benefits of the large multinational tuna fleet which operates for part of the year within 200 miles of PNG, off its north coast. There are no tuna catching vessels or tuna canneries based in PNG. (*Fishing News International*, April 1993)

Critical Look at Tuna Ventures-- The Forum Fisheries Agency will execute a 12-month Technical Assistance Grant financed by the Asian Development Bank to study the detailed experiences and cost benefits of joint ventures in the South Pacific skipjack tuna industry. A five-man technical assistance team will be managed by the FFA on behalf of the bank's ten Pacific island member countries. A workshop will be held to discuss the team's findings and also to concentrate on specific guidelines for both encouraging and regulating joint ventures in the South Pacific. Emphasis, according to an ADB official, is on how the region can capture more of the economic benefits of the South Pacific skipjack tuna fishery. The South Pacific regional tuna industry development study is likely to be seen in the region as a benchmark study, with implications for bilateral access and licensing conditions and obligations. It is probable that additional conditions related to the increased use of local services, participation in infrastructural development, employment of Pacific Islanders as crew and training will be attached to licenses in the future. (Fishing News International, April 1993)

EASTERN PACIFIC

Mexican Tuna Exports Plummet-- Mexican tuna exports plummeted from a record 91,000 mt in 1989 to less than 26,000 mt in 1992, or by more than 70 percent. The decline is due to increasing competition from other tuna producers and problems in major export markets. The United States stopped purchasing Mexican eastern Pacific yellowfin tuna in February 1991. Major European Community canneries have required less raw material as EC companies have been importing more already canned tuna. Mexican exports may decline further in 1993. EC canneries (primarily Spanish and Italian) reportedly stopped purchasing Mexican ETP yellowfin in late 1992. The Spanish decision resulted from an agreement between the canneries and an environmental group. Details on the Italian decision are not yet available. Mexico does not release information on the countries where it continues to market tuna. The decline in export sales has created substantial marketing difficulties. These difficulties, however, have not yet significantly impaired fleet operations. Fishermen caught 127,000 mt in 1992, about the same as they reported in 1990 and 1991. (The record catch of 136,000 mt was reported in 1989.) SEPESCA reports that Mexico now markets most of its tuna in the domestic market. A Mexican government official recently told journalists that Mexico marketed 103,000 mt of tuna domestically in 1992. It is not known whether these domestic sales are profitable for the industry or if SEPESCA is subsidizing the sales. (NMFS *Weekly Highlights*, May 17-21, 1993)

UPCOMING TUNA MEETINGS

(Organizer; meeting type: sci=science, adm=administration)

1993:

- SEP 24-OCT 1. West Atlantic Bluefin Tuna Stock Assessment Session. Madrid, Spain. (International Commission for the Conservation of Atlantic Tunas (ICCAT); sci)
- OCT 4-8. Expert Consultation on Stock Assessment of Tunas in the Indian Ocean. Victoria, Seychelles. (Indo Pacific Tuna Development and Management Programme; sci)
- OCT 25-29. Swordfish Species Group Meeting. Madrid, Spain. (ICCAT; sci)
- OCT 26-28. Third INFOFISH Tuna Trade Conference. Bangkok, Thailand. (INFOFISH; adm)
- NOV 1-5. SCRS Plenary Meeting, ICCAT. Madrid, Spain. (ICCAT; sci)
- NOV 8-12. Annual Meeting of the ICCAT. Madrid, Spain. (ICCAT; adm)
- DEC. Thirteenth North Pacific Albacore Workshop. La Jolla, California. (SWFSC; sci)

1994:

- FEB 16. Japan Tuna Conference. Shimizu, Japan. (National Institute of Far Seas Fisheries; adm)

Mazatlan Becomes Mexico's Major Tuna Port–Mazatlan has become Mexico's principal tuna port. Previously, Mexico's tuna catch was mostly landed and processed in Ensenada. The Camara Nacional de la Industria Pesquera (CANAINPES) reports that Mazatlan surpassed Ensenada both in terms of tuna landings and production in 1992. Mexican fishermen landed more than 52,900 mt of tuna at Mazatlan during 1992, or 40% of their total landings. Fishermen landed only 32,200 mt at Ensenada--about 25% of landings during the same year. CANAINPES also reports that more than 50% of the tuna canned in Mexico during 1992 was processed at Mazatlan. A CANAINPES official suggested that Mazatlan's importance as a tuna port has risen steadily during the last four years because of the expansion of two local canneries, Pescados Industrializados and Productos Pesqueros de Mazatlan. Both companies are highly efficient and operate their own fleet of purse seiners. Fleet operating costs are relatively low due to Mazatlan's proximity to Mexico's most productive tuna fishing grounds. The CANAINPES official indicated that landings at Ensenada have declined in part because several of the big fish canneries there have shifted production lines to other products, mostly vegetables. (NMFS *Weekly Highlights*, May 10-14, 1993)

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